



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,890	12/04/2003	Ravi Kothari	JP920030183US1	6729

7590 10/09/2007  
Frederick W. Gibb, III  
McGinn & Gibb, PLLC  
Suite 304  
2568-A Riva Road  
Annapolis, MD 21401

EXAMINER
----------

CHAVIS, JOHN Q

ART UNIT	PAPER NUMBER
----------	--------------

2193

MAIL DATE	DELIVERY MODE
-----------	---------------

10/09/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/727,890

Applicant(s)

KOTHARI ET AL.

Examiner

John Chavis

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/4/03-4/16/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2193

## DETAILED ACTION

### *Claim Objections*

1. Claim 11 is objected to because of the following informalities: "input" is misspelled in the phrase "for a given code change to a class nput". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Underwood (6,609,128).

We claim:

Underwood

1. A method for determining

See the title, abstract and

Art Unit: 2193

the possibility of adverse effect arising from a code change in a computer program, comprising the steps of:

identifying important classes within a computer program;

determining directly and indirectly dependent classes of said important classes;

associating test cases with said important classes and with said directly and dependent classes; and

for a given code change to an important class: running all said associated test cases; and

indicating the possibility of an adverse effect if any run test case fails.

col. 79 lines 1-20

The classes that are actually utilized to solve a specific problem are considered important classes identified, see col. 13 lines 36-46, col. 14 lines 5-27 and col. 15 lines 29-36. Also, see fig. 145.1, item 14502.

Sub-classing is considered to provide for direct dependencies; while, inheritance provides for indirect dependencies which are determined to provide for real world objects, col. 13 lines 47-60. Also, see fig. 145.1 item 14504.

This feature is considered inherent via items 14506 and 14508 of fig. 145.1 to enable testing to occur.

See again item 14508 of fig. 145.1.

See col. 77 lines 1-29, col. 78 lines 45-50 and col. 79 Lines 1-20. See also the impact analysis in col. 89 lines 2-7, which is also considered to indicate the possibility of adverse affects.

2. The method of claim 1, wherein the identification of important classes includes building an inheritance structure of class names and super classes of said program, and from which said structure start points and direct and indirect descendants thereof are identified.

This feature is inherent in object oriented programming as indicated via col. 12 lines 12-30, to enable inheritance. see col. 13 lines 22-24.

3. The method of claim 2, wherein determining dependent classes includes: finding references in said program to said important classes; finding methods invoked by said important classes; and determining a dependency structure of said methods that incorporates said dependent classes.

See col. 14 lines 54-56, which indicates that flow of control must be determined, i.e. finding references and determining dependency.

4. The method of claim 3, wherein determining said dependency structure further includes identifying both directly dependent and indirectly dependent classes, said indirectly dependent classes exhibiting a producer/consumer relation for persistent data.

See the reference to this feature in claim 1 above.

5. The method of claim 1, wherein indicating an adverse step includes generating a program output.

See again the rejection of claim 1.

Claims 6-10 are rejected as claims 1-5.

Art Unit: 2193

As per claims 11, 15 and 16, see the rejection of claim 1.

In reference to claims 12-14, see the rejection of claim 2-4.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Chavis whose telephone number is (571) 272-3720. The examiner can normally be reached on M-F, 9:00am-5:30pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC



John Chavis  
Primary Examiner AU-2193